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5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

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NGUYEN, PHUONGCHAU BA	

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/014,153
Filing Date: November 06, 2001
Appellant(s): VIERO, TIMO

Donald C. Kordich
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7-23-10 appealing from the Office action mailed 2-3-10.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

-Claims pending: 35-40, 42-48, 51, 53, 55, 57, 59-62, 64-66, and 74-94.

- Claims allowed: 35, 43-47, 51 and 76-80

-Claims rejected: 36-40, 42, 48, 53, 55-57, 59-62, 64-66, 74, 75, and 81-94

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading “WITHDRAWN REJECTIONS.” New grounds of rejection (if any) are provided under the subheading “NEW GROUNDS OF REJECTION.”

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant’s brief.

(8) Evidence Relied Upon

6,567,482	POPOVIC'	5-2003
6,169,759	KANTERAKIS ET AL	1-2001
6,643,275	GUSTAFSSON ET AL	11-2003
5,012,469	SARDANA	4-1991

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 36-40, 48, 51, 53, 55-57, 64, 59-62, 65-66, 74-75, 82, 84, 86, 88, 90, 92, & 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Papovic (6,567,482) in view of Kanterakis (6,169,759).

Regarding claims 36 & 82,

Papovic (6,567,482) discloses a method, comprising:

(MS) receiving a parameter (information, col.13, lines 54-59) defining allowed (available) access slots of a physically existing random access channel (RACH) from a base transceiver station (BS) of a mobile communications network by at least one mobile station of a plurality of mobile stations of the mobile communications network (MS acquired information of available access slots on RACH broadcasted from BS, step 220-fig.9);

(MS) determining (determining from acquiring RACH), at said at least one mobile station, said allowed (available) access slots of the physically existing random access channel (RACH) based on said parameter (acquired information), (see step 220-fig.9);

(MS) using (selecting), at said at least one mobile station, at least one (an access slot, step 230-fig.9) of said determined allowed access slots of the physically existing random access channel (RACH) to initiate (send) a random access operation (a request to random access to the selected access slot) with said base transceiver station (BS), (see steps 230-240, fig.9); and

(MS) receiving said parameter (information of available random access channel access slot, col.13, lines 54-59) via a broadcast Channel (via broadcast channel, col.13, lines 43-45 & 53-59), wherein said broadcast channel is a broadcast channel of a

wideband code division multiple access system (downlink and uplink between BS and MS in WCDMA, col.8, line 57-col.9, line 3).

Papovic does not explicitly disclose the parameter as a dynamically adjustable parameter. However, in the same field of endeavor, Kanterakis discloses in column 7, lines 28-36 wherein "a remote station picks an access slot in a random fashion...The length of the access burst is VARIABLE and the length of the access burst is allowed to VARY from a few access slots to many frame durations," see also figure 5. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Kanterakis's teaching to Papovic's system to optimally utilize the available access burst broadcasted down from the base station by selecting a variable length of the available access burst based on the amount of data needed to transmit by the remote station; in other word, the modified Papovic-Kanterakis teach the remote/mobile station selecting a variable length of access burst (dynamically adjustable parameter access burst) to transmit its variable size of packet to a base station would maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station's data transmission.

It is noted that the <u>modified</u> set of allowed access slots is inherently in the second random access burst (Access slot #2) figure 8A wherein the base station broadcasts the second random access burst (Access slot #2) in 1.25ms apart from the first random access burst (Access slot #1) that the mobile station selected the access slot from those that are available (corresponding to "*the modified set of allowed access slots*" in claim 82).

Regarding claim 38, Papovic further discloses wherein said parameter (frame information of random access burst-fig.8b about available RACH access slots, col.13, lines 54-59) defines a subset of available access slots (information about available RACH access slots) of said mobile communications network, see step 220-fig.9.

Regarding claim 39, Papovic further discloses (MS) determining said subset (frame information about available RACH access slots) by another parameter (the available RACH access time slots, step 220-fig.9) transmitted from said base transceiver station (BS) to said mobile station (MS).

Regarding claim 40, Papovic further discloses wherein said other parameter is a timing parameter (available RACH access time slots) defining (being selected by MS) a transmission timing of an uplink access slot (selected access slot from the available RACH access slots, step 230-fig.9).

Regarding claim 48, Papovic further determining (selecting) an index (an access slot) of an allowed uplink access slot (from the available RACH access slots) on the basis of a value of said parameter (acquired information about the available RACH access slots, col.13, lines 54-59) irrespective of a frame number of a frame used to transmit an uplink access slot (to transmit only during the selected access slot, step 240-fig.9).

Regarding claims 37 & 84,

Papovic (6,567,482) discloses a method, comprising:

(MS) receiving a parameter (information, col.13, lines 54-59) defining allowed (available) access slots of a physically existing random access channel (RACH) from a base transceiver station (BS) of a mobile communications network by at least one mobile station of a plurality of mobile stations of the mobile communications network (MS acquired information of available access slots on RACH broadcasted from BS, step 220-fig.9);

(MS) determining (determining from acquiring RACH), at said at least one mobile station, said allowed (available) access slots of the physically existing random access channel (RACH) based on said parameter (acquired information), (see step 220-fig.9);

(MS) using (selecting), at said at least one mobile station, at least one (an access slot, step 230-fig.9) of said determined allowed access slots of the physically existing random access channel (RACH) to initiate (send) a random access operation (a request to random access to the selected access slot) with said base transceiver station (BS), (see steps 230-240, fig.9); and

(MS) receiving said parameter (information of available random access channel access slot, col.13, lines 54-59) via a broadcast Channel (via broadcast channel, col.13, lines 43-45 & 53-59); and

(MS) initiating (sending) said random access operation (the request to random access to the selected access slot) via a physical random access channel uplink channel (MS to BS via RACH) and an acquisition indication channel downlink channel

(BS to MS via RACH) of the wideband code division multiple access system (downlink and uplink between BS and MS in WCDMA, col.8, line 57-col.9, line 3).

Papovic does not explicitly disclose the parameter as a dynamically adjustable parameter. However, in the same field of endeavor, Kanterakis discloses in column 7, lines 28-36 wherein “a remote station picks an access slot in a random fashion...The length of the access burst is VARIABLE and the length of the access burst is allowed to VARY from a few access slots to many frame durations,” see also figure 5. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Kanterakis’s teaching to Papovic's system to optimally utilize the available access burst broadcasted down from the base station by selecting a variable length of the available access burst based on the amount of data needed to transmit by the remote station; in other word, the modified Papovic-Kanterakis teach the remote/mobile station selecting a variable length of access burst (dynamically adjustable parameter access burst) to transmit its variable size of packet to a base station would maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station’s data transmission.

Regarding claims 53 & 86,

Papovic (6,567,482) discloses a system, comprising:

a base transceiver station (BS) configured to transmit a parameter (information, col.13, lines 54-59) defining allowed access slots of a physically existing random access channel (RACH), see also step 220-fig.9; and

a plurality of mobile stations (MS) configured to receive (to acquire) said parameter (the information, col.13, lines 54-59) to determine said allowed access slots of the physically existing random access channel based on said parameter (to acquire the available random access channel access slots, col.13, lines 54-59), and to use (to select) at least one (an access slot) of said determined allowed access slots (the available random access channel access slots) of the physically existing random access channel (RACH) to initiate (to send) a random access operation (a request to random access to the selected access slot) with said base transceiver station (BS), see also steps 230-240, fig.9, wherein said base transceiver station (BS) is a wideband code division multiple access base transceiver station (col.8, line 57-col.9, line 3) and said plurality of mobile stations are wideband code division multiple access mobile stations (col.8, line 57-col.9, line 3, MS and BS are communicated in WCDMA).

Papovic does not explicitly disclose the parameter as a dynamically adjustable parameter. However, in the same field of endeavor, Kanterakis discloses in column 7, lines 28-36 wherein “a remote station picks an access slot in a random fashion...The length of the access burst is VARIABLE and the length of the access burst is allowed to VARY from a few access slots to many frame durations,” see also figure 5. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Kanterakis’s teaching to Papovic's system to optimally utilize the available access burst broadcasted down from the base station by selecting a variable length of the available access burst based on the amount of data needed to transmit by the remote station; in other word, the modified Papovic-Kanterakis teach the remote/mobile station selecting a variable length of access burst (dynamically adjustable parameter access burst) to

transmit its variable size of packet to a base station would maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station's data transmission.

Regarding claims 55 & 88,

Papovic (6,567,482) discloses an apparatus (BS), comprising:

setting means for setting (broadcasting) a parameter (information, col.13, lines 54-59) defining allowed (available) access slots of a physically existing random access channel (RACH)(BS setting information about RACH comprising available RACH access slots, step 220-fig.9), wherein at least one mobile station (MS) initiates (sends) a random access operation (a request to random access to the selected access slot) to the apparatus (BS) based on the allowed (available) access slots of the physically existing random access channel (RACH, steps 230-240, fig.9); and

(BS) transmitting means for transmitting said parameter (information of available RACH access slots, col.13, lines 54-59) to said plurality of mobile stations (MS, see also fig.1), wherein said apparatus is a wideband code division multiple access base transceiver station (col.8, line 57-col.9, line 3, BS in WCDMA).

Papovic does not explicitly disclose the parameter as a dynamically adjustable parameter. However, in the same field of endeavor, Kanterakis discloses in column 7, lines 28-36 wherein "a remote station picks an access slot in a random fashion...The length of the access burst is VARIABLE and the length of the access burst is allowed to VARY from a few access slots to many frame durations," see also figure 5. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply

Kanterakis's teaching to Papovic's system to optimally utilize the available access burst broadcasted down from the base station by selecting a variable length of the available access burst based on the amount of data needed to transmit by the remote station; in other word, the modified Papovic-Kanterakis teach the remote/mobile station selecting a variable length of access burst (dynamically adjustable parameter access burst) to transmit its variable size of packet to a base station would maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station's data transmission.

Regarding claim 56, Papovic further discloses wherein said transmitting means (transmitter-not shown at BS-fig.1) transmits said parameter (acquired information about available RACH access slots, col.13, lines 54-59) via a broadcast channel (broadcast channel, col.13, lines 25-28 & 53-59).

Regarding claim 57, Papovic further discloses wherein said setting means (broadcasting) sets said parameter (information about available RACH access slots, col.13, lines 54-59) in dependence on a timing parameter value (the available time slot period) defining (selecting) a transmission timing of an uplink access slot (an access slot from the available RACH access slots) in said random access operation (in the request to random access to the selected access slot, see steps 230-240, fig.9).

Regarding claims 64 & 90,

Papovic (6,567,482) discloses an apparatus (MS), comprising:

a receiver (receiver 46-fig.2) configured to receive from a network element (BS, fig.1) a parameter (information about available RACH access slots, col.13, lines 54-59) defining allowed (available) access slots of a physically existing random access channel (RACH) for a random access operation (random access to BS via the available RACH access slot-emphasis added, see step 220-fig.9);

a processor (not shown) configured to determine (to determine from acquired information about available RACH access slots, col.13, lines 54-59) said allowed (available) access slots of the physically existing random access channel (RACH) based on said parameter (acquired information, col.13, lines 54-59) received from said network element (BS), see step 220-fig.9; and

a transmitter (spreader 32-fig.2) configured to initiate (to send) transmission of a random access message (a request to the available RACH access slot, step 240-fig.9) to said network element (BS) using at least one (selecting an access slot, step 230-fig.9) of said determined allowed access slots (the available RACH access slots, col.13, lines 54-59) of the physically existing random access channel (RACH), wherein the processor (not shown) is further configured to randomly select an uplink access slot (MS selects an access slot from the available RACH access slots, step 230-fig.9) to be used for transmitting a preamble (fig.8B) of said random access message (the request to random access to the available RACH access slots-emphasis added) from the allowed access slots of the physically existing random access channel determined by said processor (steps 230-240, fig.9), and wherein consecutive preambles (not shown,

i.e., different preamble from different MS) are transmitted a predetermined number of access slots apart (only during the available RACH access slots are available for selecting to access by MS-emphasis added, step 240-fig.9).

Papovic does not explicitly disclose the parameter as a dynamically adjustable parameter. However, in the same field of endeavor, Kanterakis discloses in column 7, lines 28-36 wherein "a remote station picks an access slot in a random fashion...The length of the access burst is VARIABLE and the length of the access burst is allowed to VARY from a few access slots to many frame durations," see also figure 5. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Kanterakis's teaching to Papovic's system to optimally utilize the available access burst broadcasted down from the base station by selecting a variable length of the available access burst based on the amount of data needed to transmit by the remote station; in other word, the modified Papovic-Kanterakis teach the remote/mobile station selecting a variable length of access burst (dynamically adjustable parameter access burst) to transmit its variable size of packet to a base station would maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station's data transmission.

Regarding claim 65, Papovic further discloses wherein said predetermined number *(of access slots apart-emphasis added)* depends on a timing parameter (the available RACH access slots, step 220-fig.9) received by said receiver (receiver 46-fig.2)(in other word, only the available RACH access slots are available for selecting to access by MS -emphasis added, step 240-fig.9, therefore, the predetermined number of access slots

apart would inherently depend on the availability of the available RACH access slots received by MS from BS-emphasis added).

Regarding claim 66, Papovic further discloses wherein said processor (not shown) is further configured to perform said random selection any time a preamble needs to be transmitted (step 230-240, fig.9 wherein the MS randomly selected an access slot from the available RACH access slots for transmitting a random access burst-fig.8b, see also col.13, lines 59-65).

Regarding claim 59, Papovic further discloses wherein said receiver is configured to receive said parameter (broadcasted information of available random access channel access slot, col.13, lines 54-59) via a broadcast channel (broadcast channel, col.13, lines 43-45 & 53-59).

Regarding claim 60, Papovic further discloses wherein said processor (not shown) is further configured to determine (to determine from acquired information about available RACH access slots, col.13, lines 54-59) said allowed (available) access slots of the physically existing random access channel (RACH) on the basis of said received parameter (acquired information, col.13, lines 54-59 & see step 220-fig.9) and a timing parameter (the available time slot period) received via said broadcast channel (broadcast channel, col.13, lines 43-45 & 53-59).

Regarding claim 61, Papovic further discloses wherein said processor (not shown) is further configured to calculate (to determine for selecting) an index (an access slot) of an allowed uplink access slot (from the available RACH access slots) on the basis of the value of said received parameter (acquired information about the available RACH access slots, col.13, lines 54-59) and a frame number of a frame used to transmit an uplink access slot (to transmit only during the selected access slot, step 240-fig.9).

Regarding claim 62, Papovic further discloses wherein said processor (not shown) is further configured to determine (to determine for selecting) an index (an access slot) of an allowed uplink access slot (from the available RACH access slots) on the basis of the value of said parameter (acquired information about the available RACH access slots, col.13, lines 54-59) irrespective of a frame number of a frame used to transmit an uplink access slot (to transmit only during the selected access slot, step 240-fig.9).

Regarding claims 74 & 92,

Papovic (6,567,482) discloses an apparatus (MS), comprising:

a processor (receiver 46-fig.2) configured to receive a parameter (information about available RACH access slots, col.13, lines 54-59) defining allowed (available) access slots of a physically existing random access channel (RACH) from a base transceiver station (BS) of a mobile communications network (fig.1), determine (to determine from acquired information about available RACH access slots, col.13, lines 54-59) said allowed (available) access slots of the physically existing random access channel (RACH) based on said parameter (acquired information, col.13, lines 54-59),

use (to select) at least one (an access slot, step 230-fig.9) of said determined allowed access slots of the physically existing random access channel (MS selects an access slot from the available RACH access slots, step 230-fig.9) to initiate (to send) a random access operation (a request to random access to the available RACH access slots-emphasis added, step 230-fig.9) with said base transceiver station (BS), and (MS) receive said parameter (acquired information, col.13, lines 54-59) via a broadcast channel (via broadcast channel, col.13, lines 43-45 & 53-59), wherein said broadcast channel is a broadcast channel of a wideband code division multiple access system (col.8, line 57-col.9, line 3, uplink random access channel and downlink broadcast channels between MS and BS are based upon WCDMA).

Papovic does not explicitly disclose the parameter as a dynamically adjustable parameter. However, in the same field of endeavor, Kanterakis discloses in column 7, lines 28-36 wherein "a remote station picks an access slot in a random fashion...The length of the access burst is VARIABLE and the length of the access burst is allowed to VARY from a few access slots to many frame durations," see also figure 5. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Kanterakis's teaching to Papovic's system to optimally utilize the available access burst broadcasted down from the base station by selecting a variable length of the available access burst based on the amount of data needed to transmit by the remote station; in other word, the modified Papovic-Kanterakis teach the remote/mobile station selecting a variable length of access burst (dynamically adjustable parameter access burst) to transmit its variable size of packet to a base station would maximize the utilization of the

available access slots broadcasted by the base station and maximize the remote/mobile station's data transmission.

Regarding claims 75 & 94,

Papovic (6,567,482) discloses an apparatus, comprising:

a processor (receiver 46-fig.2) configured to receive a parameter (information about available RACH access slots, col.13, lines 54-59) defining allowed (available) access slots of a physically existing random access channel (RACH) from a base transceiver station (BS) of a mobile communications network (fig.1), determine (to determine from acquired information about available RACH access slots, col.13, lines 54-59) said allowed (available) access slots of the physically existing random access channel (RACH) based on said parameter (acquired information, col.13, lines 54-59), use (to select) at least one (an access slot, step 230-fig.9) of said determined allowed access slots of the physically existing random access channel (MS selects an access slot from the available RACH access slots, step 230-fig.9) to initiate (to send) a random access operation (a request to random access to the available RACH access slots- emphasis added, step 230-fig.9) with said base transceiver station (BS), and (MS) receive said parameter (acquired information, col.13, lines 54-59) via a broadcast channel (via broadcast channel, col.13, lines 43-45 & 53-59), and (MS) initiate (sends) said random access operation (the request to random access to the selected access slot) via a physical random access channel uplink channel (MS to BS via RACH) and an acquisition indication channel downlink channel (BS to MS via RACH) of the wideband

code division multiple access system (downlink and uplink between BS and MS in WCDMA, col.8, line 57-col.9, line 3).

Papovic does not explicitly disclose the parameter as a dynamically adjustable parameter. However, in the same field of endeavor, Kanterakis discloses in column 7, lines 28-36 wherein “a remote station picks an access slot in a random fashion...The length of the access burst is VARIABLE and the length of the access burst is allowed to VARY from a few access slots to many frame durations,” see also figure 5. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Kanterakis’s teaching to Papovic's system to optimally utilize the available access burst broadcasted down from the base station by selecting a variable length of the available access burst based on the amount of data needed to transmit by the remote station; in other word, the modified Papovic-Kanterakis teach the remote/mobile station selecting a variable length of access burst (dynamically adjustable parameter access burst) to transmit its variable size of packet to a base station would maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station’s data transmission.

3. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Papovic in view of Kanterakis as applied to claim 36 above, and further in view of Gustafsson (6,643,275).

Regarding claim 42, Papovic does not explicitly disclose changing a bit number of said parameter in dependence on said other parameter.

However, in the same field of endeavor, Gustafsson (6,643,275) discloses different MSs sending simultaneous random access requests with unique signature pattern, col.6, lines 13-31. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Gustafsson's teaching of selecting an unique signature pattern to Papovic's system to reduce the risk of collision for requests from different MSs that choose the same access slot with the motivation being to separate different simultaneous random access requests using the unique signature pattern.

4. Claims 81, 83, 85, 87, 89, 91, 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Papovic in view of Kanterakis as applied to claim 36 above, and further in view of Sardana (5,012,469).

Regarding claims 81, 83, 85, 87, 89, 91, 93,

Papovic-Kanterakis do not explicitly disclose wherein said parameter is dynamically adjusted by said mobile communications network based on at least one of random access messaging load and hardware requirements at said base transceiver station.

However, in the same field of endeavor, Sardana (5,012,469) discloses in figure 2C wherein a channel is divided into frames, and the frames are divided into three regions which designated for heavy traffic users, col.5, lines 45-68. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Sardana's teaching to Papovic's system, with the motivation being to allow users to

transmit with different length of access burst at different time dynamically to a base station without collisions.

(10) Response to Argument

1. Regarding the rejection of independent claims 36, 37, 53, 55, 64, 74, and 75, as well as the rejection of dependent claims 38-40, 48, 56, 57, 59-62, 65, 66, 82, 84, 86, 88, 90, and 92, in view of Papovic and Kanterakis.

Appellant argued as following that,

> "Independent claim 36 recites the use of "a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel," allowing a base transceiver station to dynamically adjust the definition of the allowed access slots improves upon the conventional, fixed definition systems by providing various advantages, such as increased capacity, etc. See, e.g., Appellant's Background section, paragraph [0005]. The Appellant and the Examiner agree that the primary reference Papovic only teaches a conventional, fixed definition system where the allowed access slots ate not dynamically adjustable. The secondary reference Kanterakis has therefore been introduced by the Examiner in attempt to modify Papovic and maintain the rejections. **The main issue on appeal is whether allowing a mobile station, as in Kanterakis, to vary the <u>number</u> of predefined allowed access slots used to transmit a given random access burst over the conventional, fixed definition system in Papovic is equivalent to dynamically adjusting the definition of the allowed access slots themselves.** Appellant submits that it clearly is not."

In reply, appellant is directed to Papovic in figures 8a-8b wherein the base station broadcasts the available access slots to the mobile station via a Random Access Channel, see also column 13, lines 25-30; and in figure 9 wherein the mobile station receives the broadcast channel information about available random access channel access slots and selects an access time slot from those that available, then generated a random access burst and transmits to the base station. Papovic does not explicitly disclose the parameter as a dynamically adjustable parameter. However, in the same field of endeavor, Kanterakis discloses in column 7, lines 28-36 wherein "a remote station picks an access slot in a random fashion...The length of the access burst is

VARIABLE and the length of the access burst is allowed to VARY from a few access slots to many frame durations”. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Kanterakis’s teaching to Papovic's system to optimally utilize the available access burst broadcasted down from the base station by selecting a variable length of the available access burst based on the amount of data needed to transmit by the remote station; in other word, the modified Papovic-Kanterakis teach the remote/mobile station selecting a variable length of access burst (dynamically adjustable parameter access burst) to transmit its variable size of packet to a base station would maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station’s data transmission.

Papovic’ and Kanterakis

Appellant argued as following that,

“Papovic as applied teaches that “the information on what access slots are available in the current cell is broadcast by the base station on a downlink broadcast channel.” Papovic, col. 13, lines 25-28; see also, step 220 of FIG. 9. Based on this “information” about the available RACH slots, "the mobile station generates a random access burst" and transmits it to the base station. Id., col. 13, lines 61-66.

The secondary reference Kanterakis is introduced simply to show that the length of such a random access burst by a mobile station can be variable, ranging from merely a few slots to many frames. Final Action, pgs. 3-4.

Even if the Examiner is correct in characterizing the teachings of Kanterakis, and even if the proposed modification Papovic were to be made, the proposed modification would not affect the "information'" about the available RACH slots in Papovic that the Examiner is reading on the claimed "parameter" at issue, such as recited in claim 36, for example, allowing the traffic burst transmitted by the mobile station to vary in length does not change the definition of the allowed access slots advertised by the base station. The base station in Papovic would still broadcast the same "the information on what access slots are available in the current cell,” and this information would still be fixed, in contrast to the dynamically adjustable parameter claimed.

With regard to the term “available” as used in Papovic, Appellant notes that that the "available" random access channel access slots broadcast by the base station in Papovic are the allowed access slots defined by the selected RACH time offsets. See, e.g., Papovic, col. 13, lilies 24-28 ("The different time offsets are shown as access slots and are spaced 1.25 milliseconds apart. Information on what access slots are available in the current cell is broadcast by the base station on a downlink broadcast channel.”). Broadcasting “what access slots are available in the current cell" is not an indication of which allowed access slots are “available” in the sense that they are not already reserved by other mobile stations –the RACH is a random access channel, so access slots are not reserved, ahead of time and the base station does not even know which access slots will be used in the future. While a mobile station may use the information broadcast by the base station regarding the available access time slots when selecting the particular access time slots on which to transmit the burst, the reverse is not true. The definition of the available access slots for the RACH in Papovic is not affected by the number of slots a given mobile station decides to use for a particular burst of traffic.

> Accordingly, **Papovic and Kanterakis as applied fail to teach or suggest "receiving a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel" as recited in independent claim 36, for example. Even under the Examiner's proposed modification, the definition of the allowed access slots of the RACH in Papovic is fixed, not dynamically adjustable as claimed."**

In reply, appellant is directed to Papovic in figures 8a-8b wherein the base station broadcasts the available access slots to the mobile station via a Random Access Channel, see also column 13, lines 25-30; and in figure 9 wherein the mobile station receives the broadcast channel information about available random access channel access slots and selects an access time slot from those that available, then generated a random access burst and transmits to the base station. It is noted that Papovic discloses the mobile station could select an access slot from the available access slots broadcasted by the base station for generating a random access burst to the base station, thus, the amount of slots in the available access slots (the dynamically adjustable parameter defining allowed access slots) in Papovic could have been adjusted/selected by the mobile station, emphasis added. Kanterakis was combined to further detail that the remote/mobile station selected the length of the access slots from the available access slots based on the amount of data that the mobile needed to transmit; in other word, the mobile would need to adjust its selection of access slots in variable length based on its needed of bandwidth for transmitting its data size, so that to maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station's data transmission, emphasis added.

The Advisory Action

Appellant argued as following that,

> "The Examiner has continued to maintain the rejections discussed above and provided arguments in support of this position in the Advisory Action dated May 6, 2010, which Appellant will address for the sake of completeness. However, Appellant notes that the Advisory Action's arguments are predicated upon a repeated misquotation of Appellant's previously filled, response dated March 29, 2010. Appellant did not state that "The new secondary reference Kanterakis

is introduced simply to show that the length of such a random access burst by a mobile station can be available, ranging from merely a few slots to many frames" as alleged in the Advisory Action, nor does such a statement make sense grammatically. Instead, Appellant stated that "The new secondary reference Kanterakis is introduced simply to show that the length of such a random access burst by a mobile station can be variable, ranging from merely a few slots to many frames." Response filed March 29: 2010, pg. 22. **Appellant was simply restating the Final Office Action assertion that "Kanterakis discloses the length of the access burst is variable and the length of the access burst is allowed to vary from a few access slots to many frame durations**." Final Office Action, pg. 3. Neither the Appellant nor the Final Office Action made any assertion that Kanterakis teaches the length of a random access burst by a mobile station can be "available," only that the length can be variable (i.e., it can vary from merely a few slots to many frames).

From this misquotation, the Examiner draws the following conclusion:

Therefore, since the length of the random access burst by the mobile station can be available, ranging from merely a few slots to many frames; and the mobile station received the available random access slots broadcasted by the base station; hence, it is inherently implied that the available random access slots broadcasted by the base station were available, ranging from merely a few slots to many frames. Therefore, the combined teaching of Papovic and Kanterakis is proper, Advisory Action (emphasis added),

Even setting aside the soundness of the Examiner's logic, which the Appellant does not entirely follow, it is readily apparent that this conclusion is based on an erroneous characterization, of Kanterakis stemming from a misquotation of both the Appellant's arguments and the Final Office Action itself, and is therefore untenable,

In response to the Advisory Action's further comments that "the fact that Applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious," Appellant is not in fact showing another advantage. Moreover, Appellant is not attacking the references individually. Quite the contrary, **Appellant is showing that even if the Examiner's proposed combination were to be made, it would still fail to render the claimed combinations obvious.**

Accordingly, Appellant submits that claim 36 discussed above is allowable over Papovic and Kanterakis. The remaining independent claims (i.e., claims 37, 53, 55, 64, 74, 75) similarly recite "receiving or transmitting a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel", and are therefore allowable for reasons similar to those given above. Further, the dependent claims are allowable at least by virtue of their dependency on the above-identified independent claims."

In response to appellant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, appellant is directed to Papovic in figures 8a-8b wherein the base station broadcasts the available access slots to the mobile station via a Random Access Channel, see also column 13, lines 25-30; and in figure 9 wherein the mobile station receives the broadcast channel information about available random access channel access slots and

selects an access time slot from those that available, then generated a random access burst and transmits to the base station. It is noted that Papovic discloses the mobile station could select an access slot from the available access slots broadcasted by the base station for generating a random access burst to the base station, thus, the amount of slots in the available access slots (the dynamically adjustable parameter defining allowed access slots) in Papovic could have been adjusted/selected by the mobile station, emphasis added. Kanterakis was combined to further detail that the remote/mobile station selected the length of the access slots from the available access slots based on the amount of data that the mobile needed to transmit; in other word, the mobile would need to adjust its selection of access slots in variable length based on its needed of bandwidth for transmitting its data size, so that to maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station's data transmission, emphasis added.

Dependent Claim 82

Appellant argued as following that,

"The remaining dependent claims are also believed to recite additional subject matter which is not obvious in view of the cited art. Dependent claim 82, for example, which depends from claim 36 argued above and is rejected in view of the same references Papovic and Kanterakis, further recites "receiving, at said at least one mobile station, an adjusted parameter defining a modified set of allowed access slots of the physically existing random access channel from said base transceiver station via said broadcast channel; determining, at said at least one mobile station, said modified set of allowed access slots of the physically existing random access channel based, on said adjusted parameter; and using, at said at least one mobile station at least one of said determined modified set of allowed access slots of the physically existing random access channel to initiate a second random access operation with said base transceiver station." **As discussed above, Papovic and Kanterakis are limited to the conventional, fixed definition systems where the allowed access slots are not dynamically adjustable.** Accordingly, Papovic in view of Kanterakis cannot teach operating according to a "modified" set of allowed access slots when they do not provide the ability to modify the allowed access slots in the first place. The Final Office Action does not address claim 82 separately; but only in the context of claim 36, and draws the same erroneous conclusions about the teachings of Papovic and Kanterakis. Final Office Action, pgs. 2-4."

In reply, appellant is directed to Papovic in figures 8a-8b wherein the base station broadcasts the available access slots to the mobile station via a Random Access Channel, see also column 13, lines 25-30; and in figure 9 wherein the mobile station receives the broadcast channel information about available random access channel access slots and selects an access time slot from those that available, then generated a random access burst and transmits to the base station. The <u>modified</u> set of allowed access slots is inherently in the second random access burst (Access slot #2) figure 8A wherein the base station broadcasts the second random access burst (Access slot #2) in 1.25ms apart from the first random access burst (Access slot #1) that the mobile station selected the access slot from those that are available. It is noted that Papovic discloses the mobile station could select an access slot from the available access slots (i.e., random access burst in Access slot #2) broadcasted by the base station for generating a random access burst to the base station, thus, the amount of slots in the <u>available</u> access slots (the dynamically adjustable <u>parameter</u> defining a modified set of allowed access slots, i.e., random access burst in Access slot #2) in Papovic could have been adjusted/selected by the mobile station, emphasis added. Kanterakis was combined to further detail that the remote/mobile station selected the length of the access slots from the available access slots based on the amount of data that the mobile needed to transmit; in other word, the mobile would need to adjust its selection of access slots in variable length based on its needed of bandwidth for transmitting its data size, so that to maximize the utilization of the available access slots broadcasted by the base station and maximize the remote/mobile station's data transmission, emphasis added.

2. Regarding the rejection of dependent claim 42 in view of Papovic, Kanterakis, and Gustafsson.

Appellant argued as following that,

> "Gustafsson fails to cure the deficiencies of Papovic and Kanterakis discussed above with regard to independent claim 36. Thus, Appellant submits that independent claim 36 is patentable over Papovic and Kanterakis in view of Gustafsson for the reasons discussed above. Accordingly, the patentability of independent claim 36 precludes a rejection of claim 42, which depends therefrom."

In reply, appellant is directed to examiner's argument in section 1 (Response to Argument) wherein the combination of Papovic and Kanterakis does teach the claimed limitations in claim 36. Claim 42 is rejected in virtue of its dependency on claim 36, see also 103 rejection regarding claim 42 limitations as set forth as above.

3. Regarding the rejection of dependent claims 81, 83, 85, 87, 89, 91, and 93 in view of Papovic, Kanterakis, and Sardana.

Appellant argued as following that,

> Sardana fails to cure the deficiencies of Papovic and Kanterakis discussed above with regard to independent claims 36, 37, 53, 55, 64, 74, and 75. Thus, Appellant submits that independent claims 36, 37, 53, 55, 64, 74, and 75 are patentable over Papovic and Kanterakis in view of Sardana for the reasons discussed above. Accordingly, the patentability of independent claims 36, 37, 53., 55, 64, 74, and 75 precludes a rejection of claims 81, 83, 85, 87, 89, 91, and 93 depending variously therefrom.

In reply, appellant is directed to examiner's argument in section 1 (Response to Argument) wherein the combination of Papovic and Kanterakis does teach the claimed limitations in claims 36, 37, 53, 55, 64, 74, and 75. Claims 81, 83, 85, 87, 89, 91, and 93 are rejected in virtue of its dependency on claims 36, 37, 53, 55, 64, 74, and 75, see also 103 rejection regarding claims 36, 37, 53, 55, 64, 74, and 75 limitations as set forth as above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/PHUONGCHAU BA NGUYEN/

PHUONGCHAU BA NGUYEN
Examiner, Art Unit 2464

Conferees:

RICKY NGO
SPE, Art Unit 2464

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2464

DERRICK FERRIS
SPE, Art Unit 2463
/Derrick W Ferris/
Supervisory Patent Examiner, Art Unit 2463